

Apply Nanomedicine to Enhance Anti-Cancer Therapy, including Immunotherapy

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I am a clinical Oncologist treating cancer patients. Anti-cancer treatments include surgery, radiotherapy and anti-cancer drugs. We use combined modality to treat locally advanced disease. I will talk about our recent studies applying nanomedicine to enhance anticancer efficacy, which give a hope for our cancer patients. In my talk, I will discuss our research results regarding the application nanomedicine to enhance anti-cancer therapy, such as using synchronization of nanoparticle sensitization and radiosensitizing chemotherapy through cell cycle arrest achieving ultralow X-Ray dose delivery to locally pancreatic tumors, designing targeted delivery of AUY922, HSP90 inhibitor, using GSH-sensitive Hyaluronic acid derivative-micelle to enhance the therapeutic efficacy of brain cancers, and applying glycolalyical Au nanoparticles tailors macrophage polarization for effective lung cancer immunotherapy. These results will give a hope for our cancer patients in the future.